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PATENT COOPERATION TREATY

PCT/JP2003/009703



PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

2 FEB 2005

Translation

Applicant's or agent's file reference 903171	FOR FURTHER ACTION See Form PCT/IPEA/416	
International application No. PCT/JP2003/009703	International filing date (day/month/year) 30 July 2003 (30.07.2003)	Priority date (day/month/year) 29 August 2002 (29.08.2002)
International Patent Classification (IPC) or national classification and IPC H04N 13/00, G06T 17/40		
Applicant SHARP KABUSHIKI KAISHA		

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 5 sheets, including this cover sheet.

3. This report is also accompanied by ANNEXES, comprising:

a. ☒ (sent to the applicant and to the International Bureau) a total of 11 sheets, as follows:

☒ sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).

☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.

b. ☐ (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

4. This report contains indications relating to the following items:

☒ Box No. I Basis of the report

☐ Box No. II Priority

☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

☒ Box No. IV Lack of unity of invention

☒ Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

☐ Box No. VI Certain documents cited

☐ Box No. VII Certain defects in the international application

☐ Box No. VIII Certain observations on the international application

Date of submission of the demand 23 January 2004 (23.01.2004)	Date of completion of this report 26 October 2004 (26.10.2004)
Name and mailing address of the IPEA/JP	Authorized officer
Facsimile No.	Telephone No.

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International Application No.

PCT/JP2003/009703

Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

- ☐ This report is based on translations from the original language into the following language _____, which is language of a translation furnished for the purpose of:
- ☐ international search (under Rules 12.3 and 23.1(b))
- ☐ publication of the international application (under Rule 12.4)
- ☐ international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the elements of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

- ☐ The international application as originally filed/furnished
- ☒ the description:
- pages _____ 1, 5-19 _____, as originally filed/furnished
- pages* _____ 2, 2/1, 3, 3/1, 4, 4/1 _____ received by this Authority on _____ 23 July 2004 (23.07.2004)
- pages* _____ received by this Authority on _____
- ☒ the claims:
- pages _____ 3, 8-10, 12-16 _____, as originally filed/furnished
- pages* _____, as amended (together with any statement) under Article 19
- pages* _____ 1, 2, 4, 7, 11, 17-20 _____ received by this Authority on _____ 23 July 2004 (23.07.2004)
- pages* _____ received by this Authority on _____
- ☒ the drawings:
- pages _____ 1-30 _____, as originally filed/furnished
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____
- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. ☒ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☒ the claims, Nos. _____ 5, 6, 21, 22 _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

Box No. IV Lack of unity of invention

1. ☐ In response to the invitation to restrict or pay additional fees the applicant has:
- ☐ restricted the claims.
 - ☐ paid additional fees.
 - ☐ paid additional fees under protest.
 - ☐ neither restricted nor paid additional fees.
2. ☒ This Authority found that the requirement of unity of invention is not complied with and chose, according to Rule 68.1, not to invite the applicant to restrict or pay additional fees.

3. This Authority considers that the requirement of unity of invention in accordance with Rules 13.1, 13.2 and 13.3 is

- ☐ complied with.
- ☒ not complied with for the following reasons:

The matter common to claims 1-20 (excluding claims 5, 6, 21 and 22 deleted by the amendment) is the constitution in which depth information is set for two-dimensional graphic data.

However, as a result of survey, this constitution was considered to be not novel, since it is disclosed in document [JP, 8-182023, A (Sanyo Electric Co., Ltd.), 12 July, 1996 (12.07.96), page 2, right column, line 29 to page 3, left column, line 2]. So, this constitution as a common matter is not a special technical feature in the sense of the second sentence of PCT Rule 13.2.

Therefore, the subject matters of claims 2, 3, 11-13, 14-16 and 19 do not satisfy the requirement of unity of invention in relation with claim 1.

4. Consequently, this report has been established in respect of the following parts of the international application:

- ☐ all parts.
- ☒ the parts relating to claims Nos. 1-4, 7-20

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International Application No.

PCT/JP03/09703

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	2, 11-13, 19	YES
	Claims	1, 3, 4, 7-10, 14-18, 20	NO
Inventive step (IS)	Claims		YES
	Claims	1-4, 7-20	NO
Industrial applicability (IA)	Claims	1-4, 7-20	YES
	Claims		NO

2. Citations and explanations (Rule 70.7)

Document 1: JP, 8-182023, A (Sanyo Electric Co., Ltd.), 12 July, 1996 (12.07.96)
 Document 2: JP, 8-227464, A (Sanyo Electric Co., Ltd.), 3 September, 1996 (03.09.96)
 Document 3: JP, 11-296700, A (Toshiba FA System Engineering K.K.), 29 October, 1999 (29.10.99)
 Document 4: JP, 8-147495, A (Photo Craft Co., Ltd.), 7 June, 1996 (07.06.96)
 Document 5: WO, 2002-013143, A (Dynamic Digital Depth Research Proprietary Ltd.), 14 February, 2002 (14.02.02), & US, 2002/0118275, A1, & EP, 1314138, A, & JP, 2004-505394, A

The subject matters of claims 1, 7-10 and 18 do not appear to be novel or to involve an inventive step, since they are described in document 1 (page 2, right column, line 29 to page 3, left column, line 2; page 3, right column, line 43 to left column, line 1) or document 2 (page 2, right column, lines 12-44; page 4, left column, line 22 to right column, line 36) respectively cited in the ISR, or newly cited document 4 (paragraphs 0032-0035). Also in the invention described in document 1 or 2, depth information is set individually in graphic data by means of sprite and layer. Furthermore, document 4 describes a constitution, in which frame images PF11 to 14 with image PI corresponding to the far and near position written in them are produced. In this case, depth information is individually set in plural sets of two-dimensional graphic data by means of frame images.

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.
Continuation of: V2

The subject matters of claims 2, 11-13 and 19 do not appear to involve an inventive step in view of document 1 or 2, document 3 cited in the ISR and newly cited document 5. The section number described in document 3 (page 4, left column, line 49 to right column, line 6) corresponds to the depth information described in claims 2, 11 and 19. Furthermore, a person skilled in the art could have easily applied the technique of displaying the section image selected in reference to the section number, taught by document 3, to the three-dimensional image of document 1 or the stereoscopic image of document 2. Furthermore, document 5 (page 11, lines 21-28) describes a matter, in which in the case where it is desired that one object on a layer appears at a different depth, a new layer for the object is produced. A person skilled in the art could have easily applied the said matter to the three-dimensional image of document 1 or to the stereoscopic image of document 2. Moreover, a person skilled in the art could have, as required, (1) specified the layer desired to appear at a different depth and (2) displayed the specified layer, for displaying a graphic form with the received depth information established.

The subject matters of claims 4, 17 and 20 do not appear to be novel or to involve an inventive step, since they are described in document 5 (page 8, line 29 to page 9, line 4; page 10, lines 9-18). Document 5 describes the constitution in which a layer identifier is made to correspond to an object identifier, and the constitution in which the amount of displacement in the horizontal direction is decided according to several standards, conventions or instructions. Since a layer identifier corresponds to depth information, the depth information is set for an object identifier. Furthermore, that the amount of displacement in the horizontal direction is decided according to several standards, conventions or instructions corresponds to plural calculation methods being available for the amount of shift. Selecting a calculation method suitable for the content from these calculation methods is a mere matter of design variation for a person skilled in the art.

The subject matters of claims 3 and 14-16 do not appear to be novel or to involve an inventive step, since they are described in document 4 (paragraphs 0031-0033). Document 4 (paragraph 0031) describes the constitution in which the background plane is used as the reference for depth information. Document 4 (paragraphs 0032 and 0033) describes that frame images PF11 to 14 with image PI corresponding to the far and near position written in them are produced.